Although the first member 102 in FIG. 1 is a conventional u-channel, embodiments of the present invention can be used with other conventional structural members, such as a c-channel or a z-channel. Similarly, although the second member 104 in FIG. 1 is a conventional c-channel, embodiments of the present invention can be used with other conventional structural members, such as a u-channel or a z-channel.

Turning now to focus more particularly on the clip 100, which comprises a planar base plate 114 comprising a first surface 116 and an opposing second surface 118. The base plate 114 is adapted for fixed attachment to the first member 102, such as by apertures 119 for accepting fasteners such as self-drilling screw member 121. A guide 120 depends from the base plate 114 comprising a first arm 122 extending from a proximal end adjacent the second surface 118. The guide 120 furthermore comprises one or more second arms 124 extending away from the base plate 114 oriented in the same direction as the first arm 122, defining a channel 126 therebetween. Although not explicitly shown, it will be understood that conventional strengthening features such gussets and ribs can be incorporated into portions of the clip 100 as needed, and more particularly to strengthen the arms 122, 124.

The second member 104 in the example of FIG. 1 has a medial web portion 128 and stiffening flanges 130. FIG. 2 better illustrates the manner in which the channel 126 receivingly engages the web 128 in a characteristic operative sliding relationship. Namely, assuming a stationary clip 100, the second member 104 has freedom of movement in a direction along its longitudinal axis, denoted by the reference number 131 in FIG. 2, as the web 128 is slidingly constrained within the channel 126. The web 128 slidingly engages bearing surfaces 123, 125, respectively, of the arms 122, 124. Lateral movement is prevented by the sandwiching support of the opposing arms 122, 124.

FIG. 3 is a cross sectional view of the clip 100 of FIG. 1 with the web 128 omitted to better illustrate the channel 126. The opposing arms 122, 124 can be selectively spatially disposed to define the width 129 of the channel 126. By

selectively setting the width 129 relative to the thickness 133 (FIG. 2) of the web 128, a desired frictional resistance to the operative sliding engagement is achieved. That is, in one embodiment the width 129 is substantially the same or greater than the thickness 133 so that the web 128 is receivingly engaged within the channel 126. In an alternative embodiment the width is substantially less than the thickness 133, as in FIG. 4, so that the arms 122, 124 compressingly engage against the web 128, resulting in an operative positive engagement between the clip 100 and the second member 104.

This compressing engagement of one or more of the arms 122, 124 against the web 128 generally results in a relatively more robust slip joint. Additional benefits are provided as well, for example, in that compressing engagement makes it easier to construct the framing assembly. For example, the compressing engagement makes the clip 100 longitudinally self-aligning with the second member 104. Also, the compressing engagement temporarily retains the clip 100 to the second member 104 for a hands-free manipulation during subsequent alignment and attachment to the first member 102.

A retainer can be provided to selectively limit displacement of the clip 100 relative to the second member 104 during displacement. For example, in FIG. 1 a screw 138 can pass through an opening 140 in one or both arms 122, 124 and engage the web 128. The opening 140 is preferably slotted and disposed parallel to the second member 104 longitudinal axis, thereby providing longitudinal freedom of movement to the clip 100 within selected limits of displacement. That is, at the desired limits of displacement the retainer will pressingly engage against the respective edge of the opening 140. In this manner, the framing members 102, 104 are less likely to be pulled apart even under extreme loading.

Where the retainer comprises a threaded fastener such as screw 138, it will be recognized that the fastener can be selectively threadingly attached so as to urge one or both arms 122, 124 against the web 128, imparting a desired frictional resistance to

the sliding engagement, However, the fastener cannot be attached to an extent such as would bind the web 128 within the clip 100 and thereby vitiate the slip joint function.

The arms 122, 124 of FIGS. 3 and 4 can be curved outwardly, away from the channel 126, at the distal ends thereof. This facilitates insertion of the web 128 into the channel 126. The arm 122 can be relatively longer for the same purpose. Also, although not shown, as mentioned above conventional stiffening structures such as detents and gussets can be employed to strengthen the arms 122, 124 and base 114 portions of the clip 100. Conventional surface finishing and/or lubricious coatings can be advantageous as well to enhance the operative sliding engagement.

As described, the opposing arms 122, 124 support the second member 104 in a manner permitting a freedom of longitudinal movement while preventing lateral movement. As shown in FIG. 5, additional lateral support can be provided to the clip 100 by the first member 102. For example, the illustrative first member 102 is a u-shaped channel with a medial web 132 and stiffening flanges 134 defining a cavity 136 having a lateral depth 135. The base 114 and arms 122, 124 can be sized so as to substantially laterally span the depth 135 of the cavity 136, thereby utilizing the flanges 134 of the first member 102 to laterally support the clip 100.

An important characteristic feature of the embodiments of the present invention involve the manner that the clip 100 slidingly engages the vertical member web 128. This distributes forces during deflection across the longitudinal cross section of the vertical member 104, thereby minimizing moments imparted to the vertical member 104. This manner of sliding engagement also helps to maintain the relative orthogonal relationship of the joined framing members during deflection. These advantages minimize the likelihood of binding in the joint during deflection.

Moments can be further minimized by the manner that the clip 100 is fixed to the first member 102. From FIG. 2 it will be noted that the apertures 119, defining the placement of fasteners for attaching the clip 100 fixed end to the first member 102, preferably align the fasteners so that the attachment forces act substantially parallel with the channel 126. In the ideal case, the fastening forces are substantially